

REMARKS

Claims 1, 5 to 8, 10, and 12 to 24 are pending in this application.¹ Of these, claims 1, 8 and 10 are independent. Favorable reconsideration and further examination are respectfully requested.

As requested by the Examiner, new Figs. 1 and 3 are being submitted herewith.

Turning to the claims, independent claim 1 was rejected over U.S. Patent No. 7,043,109 (Kish) in view of U.S. Publication No. 2001/0020123 (Diab); and independent claims 8 and 10 were rejected over Kish in view of U.S. Publication No. 2002/0070359 (Kai). References applied against the dependent claims include U.S. Patent No. 5,736,848 (DeVries) and U.S. Publication No. 2002/0048022 (Schmelzer). Without conceding the propriety of the rejections, independent claims 1 and 10 have been amended, as shown above.

Regarding independent claim 1, pages 3 and 4 of the Office Action states the following:

Kish lacks specifically wherein the different wavelengths of light are applied via light-emitting diodes that are mounted to the testing card.

It is common in the art that lasers and light emitting diodes are measured for wavelengths of light, and Diab et al. discloses wherein different wavelengths of light are applied via light emitting diodes, wherein the wavelengths are monitored (paragraphs 71

¹ The Examiner is urged to independently confirm this recitation of the pending claims.

and 72) and wherein the light emitting diodes (figure 7, 254 and 256) are mounted to a testing card (figure 7, connector and it's components).

It would have been obvious to one with ordinary skill in the art at the time the invention was made for Kish to include having light emitting diodes mounted to a testing circuit, wherein the light emitting diodes would apply the different wavelengths of light as taught by Diab et al. in order to have a system to obtain a precise wavelength for an accurate measurement system (abstract).

In this regard, the cited portions of Diab relate to a sensor for blood oximetry measurements. Kish, by contrast is directed to testing integrated circuits. Contrary to what is said in the Office Action, we do not understand there to be any motivation to combine the LEDs of the Diab sensor (for blood oximetry measurements) with the circuitry for testing integrated circuits of Kish.

Furthermore, we do not understand Diab to disclose or to suggest testing needles of the type claimed that form contacts between the testing card and the integrated circuit. In this regard, the specification of Kish was first filed on October 8, 2002, which is after the August 30, 2002 filing date of the German application from which the subject application claims priority. Kish claims priority to six provisionals, which have filing dates earlier than August 30, 2002. However, these provisionals do not appear to disclose or to suggest testing needles of the type claimed. In this regard, Fig. 22 of Kish shows contact probes 206A and 206B. The closest support we could find in the provisionals for this features is in 60/328,207, which shows probes in Figs. 42a to 42c, and which states on page 93 that

Another feature of the invention is the use of a probe card containing a plurality of contact probes, such as, for example, one for each inline optical active component (e.g., inline laser sources and respective modulators) per IC chip to provide wafer level reliability screening before or after wafer burn-in.

However, we do not see disclosure of needles that contact to a testing card and a semiconductor substrate, as claimed. Accordingly, it appears that the portion of Kish which discloses probes contacting a probe card is not supported by the provisionals and, therefore, does not constitute prior art to the subject application. The Examiner is respectfully requested to confirm this for himself and, once the Examiner is satisfied, to discount Fig. 22 of Kish when determining whether claim 1 is patentable over the applied art.

For at least the foregoing reasons, claim 1 is believed to be patentable.

Turning to independent claim 8, pages 5 and 6 of the Office Action state the following:

Kish et al. lacks specifically a temperature sensor for measuring temperature of light source and correction data derived from the temperature.

Kai et al. discloses a temperature sensor that determines a temperature of the light sources, and uses the output of the temperature sensor to control the oscillation wavelengths by compensation for temperature conditions (abstract).

At the time the invention was made it would have been obvious for one of ordinary skill in the art to modify Kish et al. by adding a temperature sensor for measuring the temperature of light source for correction of the wavelengths as taught by

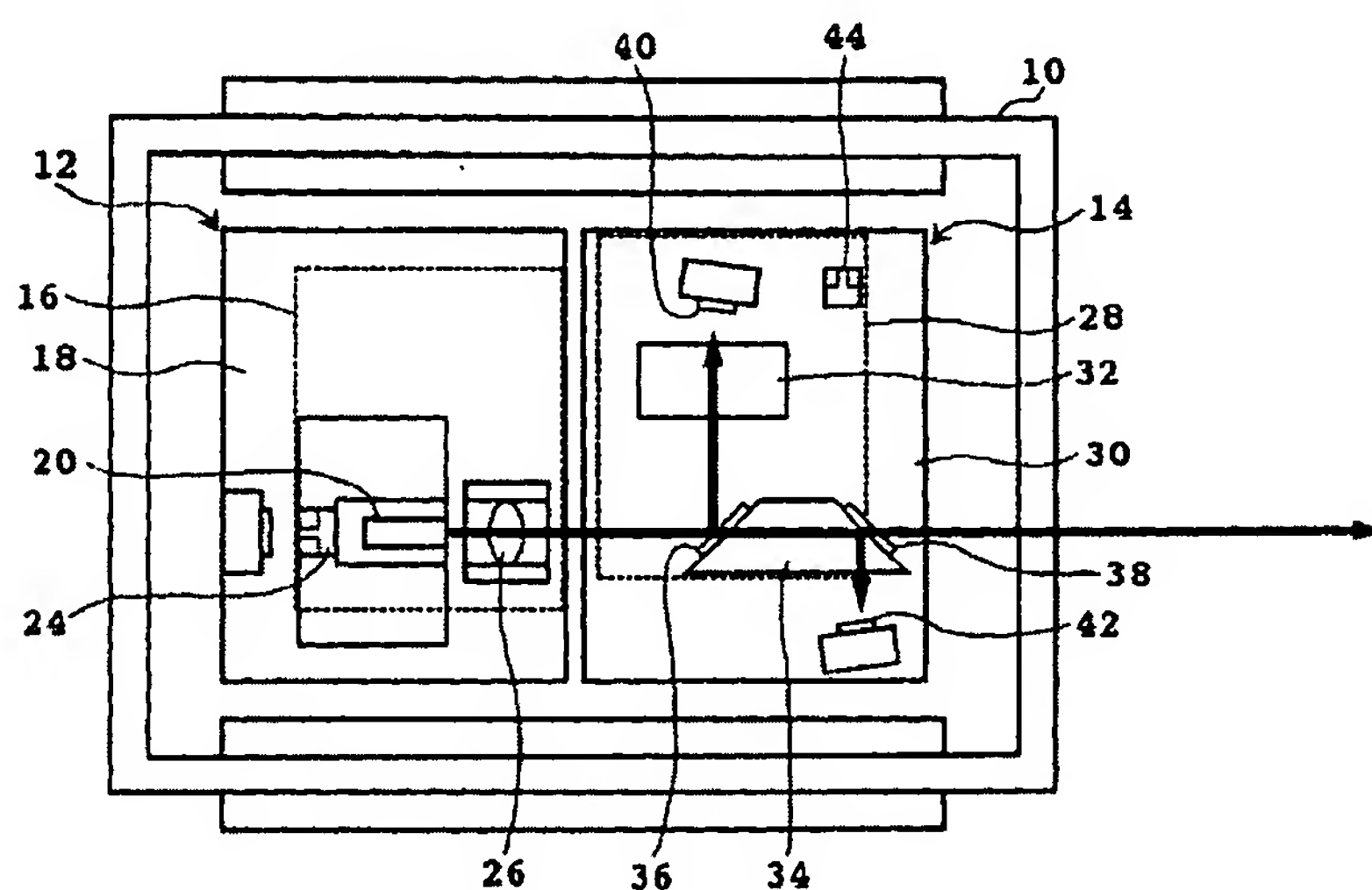
Kai et al. in order to be able to easily control the wavelength in the system (page 1 paragraph 10).

In this regard, referring to its Fig. 3 (below), Kai describes the following

[0030] The light source unit 12 includes a Peltier element 16 provided so as to allow heat exchange to the housing 10, an LD base 18 fixed to the Peltier element 16, an LD array chip 20 provided on the base 18, and a thermistor 24 as a temperature sensor provided in the vicinity of the LD array chip 20. As the LD array chip 20, the tunable laser shown in FIG. 1 may be used, for

example. Light output from the LD array chip 20 is passed through a lens 26 and then output from this light source unit 12.

FIG. 3



Thus, in Kai, the temperature sensor (thermistor 12) is “in the vicinity of” the LD array chip 20. There is no disclosure or suggestion to include a light-sensitive integrated circuit and a temperature sensor on a semiconductor chip, as claimed. Accordingly, even if Kai were combined with Kish in the manner suggested in the Office Action, the resulting hypothetical combination would fail to disclose or to suggest these features of claim 8.

Furthermore, in claim 8, the correction data is derived using the temperature of the external light source, and the correction data is for use in correcting the wavelength-dependent output signal. In Kai, the wavelength of its laser diode changes based on temperature information (not correction data) provided by its temperature sensor (see, e.g., paragraph 0027 of Kai).

For at least the foregoing reasons, claim 8 is believed to be patentable.

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Independent claim 10 has been amended to include that a semiconductor chip comprises the integrated circuit and the temperature sensor. As explained above with respect to claim 8, this feature is not believed to be disclosed or suggested by the applied art. Furthermore, claim 10 recites correcting the output signal using the corrected information. As explained above, this feature is not believed to be disclosed or suggested by the applied art. For at least these reasons, independent claim 10 is believed to be patentable.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

In view of the foregoing amendments and remarks, we respectfully submit that the application is in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

The undersigned attorney can be reached at the address shown below. All telephone calls should be directed to the undersigned at 617-521-7896.

Please apply any deficiency in fees or credit any overpayment to Deposit Account 06-1050 referencing Attorney Docket No. 14603-012US1.

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Respectfully submitted,

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